

〈原 著〉

## *Talaromyces* FO-3182 の生産するメラニン生成抑制物質

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### **Novel Inhibitor of Melanogenesis Produced by *Talaromyces* FO-3182**

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#### **Abstract**

In our screening for inhibitors of melanogenesis using B16 melanoma cells, a fungal organism, strain FO-3182 was found to produce an active compound. Taxonomical study showed that strain FO-3182 belonged to the genus *Talaromyces*. An active compound was isolated from fermentation broth of *Talaromyces* FO-3182 by use of silica gel column chromatography. By structural study, it was determined to have isonitrile groups. This compound reduced melanin content of B16 melanoma cells to 75% at final concentration of  $10^{-5}$ M, without any significant effect on the cell number, and the compound showed strong inhibitory activity to tyrosinase prepared from B16 melanoma cells and the concentration of 50% inhibition was about  $5 \times 10^{-7}$ M. The inhibiting manner of tyrosinase activity by the compound was non-competitive.

**Key words:** melanin, tyrosinase, B16 melanoma, genus *Talaromyces*, isonitrile group.